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**DATE:** January 20, 1999

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INRP:058

**TO:** Ms. Karin Tyson, Sr. Legal Advisor

**COMPANY:** U.S. PATENT & TRADEMARK OFFICE, Special Program Law Office

**FAX NO.:** (703) 308-6916

**FROM:** Steven L. Highlander, Reg. No. 37,642

**SENDER'S  
PHONE:** (512) 418-3184

**NO. OF PAGES TO FOLLOW:** 15 **ORIGINAL: WILL NOT FOLLOW**

**COMMENTS:**

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**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:  
Shuyuan Zhang, Capucine Thwin  
and Zheng Wu

Serial No.: 08/975,519

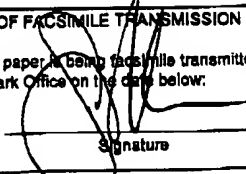
Filed: November 20, 1997

For: AN IMPROVED METHOD FOR THE  
PRODUCTION AND PURIFICATION OF  
ADENOVIRAL VECTORS

Group Art Unit: 1641

Examiner: Unknown

Atty. Dkt. No.: INRP:058/PAR

CERTIFICATE OF FACSIMILE TRANSMISSION	
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1-20-99	
Date	Signature

**RESPONSE TO DECISION DATED NOVEMBER 20, 1998 AND  
PETITION UNDER 37 C.F.R. § 1.47(b)**

BOX DAC  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Applicants file this communication responsive to the Decision Refusing Status Under 37 C.F.R. § 1.47(a) dated November 20, 1998 regarding the above-identified patent application.

Applicants hereby resubmit their petition under 37 C.F.R. § 1.47(b) to make the above-identified application for patent without the consent of one of the inventors. Dr. Toohyon Cho is

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an inventor in this application who refuses to sign the inventors' Oath and Declaration. Submitted with this Petition is the Second Declaration of Kevin S. Casement Under 37 C.F.R. § 1.47 attesting to the facts and last known address of inventor Cho. Exhibit A to his Declaration was filed on May 22, 1998 and is not being refiled at this time. Applicants note that the Supplemental Declaration contains an averment that a copy of the application as filed was provided to Dr. Cho.

Assignee Introgen Therapeutics, Inc. has attempted to reach inventor Cho at the following address, and inventor Toohyon Cho has refused to sign the inventors' Oath and Declaration:

874 Yorkchester, #102  
Houston, Texas 77079

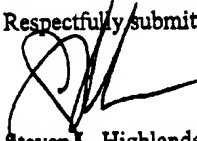
Applicants also submit a complete inventors' Oath and Declaration signed by all signing inventors, on behalf of inventor Cho. Note that inventor Cho's residence, citizenship and post office address have been indicated, thereby identifying Toohyon Cho as the non-signing inventor pursuant to MPEP 409.03(a)(1).

Pursuant to the November 20, 1998 Decision advising that the power of attorney is considered defective, Applicants attach a copy of the Notice of Recordation of Assignment of the signing inventors assigning this application to Introgen Therapeutics, Inc. Assignee Introgen Therapeutics, Inc. submits that it is empowered to take action as assignee of the Rule 1.47 Applicants.

Applicants filed the fee related to this Petition on May 22, 1998. Therefore, Applicants believe no fees are due in connection with the filing of this Response and Petition; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to the

enclosed materials, the Commissioner is hereby authorized to deduct said fees from Arnold, White  
& Durkee Deposit Account No. 01-2508/TNRP:058/PAR.

Respectfully submitted,



Steven L. Highlander  
Reg. No. 37,642  
Attorney for Applicant

ARNOLD, WHITE & DURKEE  
P.O. Box 4433  
Houston, Texas 77210-4433  
(512) 418-3000

Date: 1-20-99

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Shuyuan Zhang  
Capucine Thwin  
Zheng Wu  
Toohyon Cho

Group Art Unit: 1641

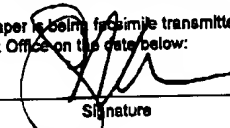
Examiner: Mosher, M.

Atty. Dkt. No.: INGN:058/PAR

Serial No.: 08/975,519

Filed: November 20, 1997

For: AN IMPROVED METHOD FOR THE  
PRODUCTION AND PURIFICATION OF  
ADENOVIRAL VECTORS

CERTIFICATE OF FACSIMILE TRANSMISSION	
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1/21/99	
Date	Signature

**SUPPLEMENTAL DECLARATION OF DR. KEVIN S. CASEMENT  
UNDER 37 C.F.R. § 1.47**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

I, Kevin S. Casement, Ph.D., declare that:

1. I am a U.S. citizen, residing at 2750 Holly Hally, #1218, Houston, Texas. I am employed as a scientific advisor to the University of Texas M.D. Anderson Cancer Center in Houston, Texas. At the time of filing of this application, I was employed as a scientific advisor

A: 108876(41)K011.DOC

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with the law firm of Arnold, White & Durkee, legal counsel representing Introgen Therapeutics, Inc., assignee of the above-referenced patent application.

2. Dr. Toohyon Cho is a former employee of Introgen Therapeutics, Inc., the entity to which all intellectual property rights of the present invention have been assigned as a condition of his employment with Introgen Therapeutics (Exhibit A). Dr. Cho is a co-inventor of the above-referenced patent application.

3. In the normal course of business, I contacted Dr. Cho and informed him of inventors' Oath and Declaration papers that required his signature in relation to the present patent application. On February 4, 1998, I forwarded a complete copy of the application papers, including the specification, claims, abstract, drawings, Oath and Declaration, to Dr. Cho via Federal Express to his last known address: 874 Yorkchester, #102, Houston, Texas 77079.

4. On February 6, 1998, Dr. Cho indicated by telephone his unwillingness to sign the Oath and Declaration papers which were sent to him with the patent application. On February 10, 1998, I contacted Dr. Cho by telephone and he again refused to sign the inventors' Oath and Declaration.

5. I hereby declare that all statements made herein of my knowledge are true and that all statements made herein on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the U.S. Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

1/19/99  
DATE

Kevin S. Casement  
KEVIN S. CASEMENT, PH.D.



DECLARATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or the below named inventors are the original, first and joint inventors (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled **AN IMPROVED METHOD FOR THE PRODUCTION AND PURIFICATION OF ADENOVIRAL VECTORS**, the Specification of which:

- ☐ is attached hereto.  
☒ was filed on November 20, 1997 as Application Serial No. 08/975,519.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability of the subject matter claimed in this application, as "materiality" is defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose all information known to me to be material to patentability of the subject matter claimed in this application, as "materiality" is defined in Title 37, Code of Federal Regulations, § 1.56, which become available between the filing date of the prior application and the national or PCT international filing date of this application:

60/031,329	November 20, 1996	Co-Pending
(Application Serial No.)	(Filing Date)	(Status)

I hereby direct that all correspondence and telephone calls be addressed to Steven L. Highlander, Arnold, White & Durkee, P.O. Box 4433, Houston, Texas 77210, (512) 418-3000.

I hereby declare that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of title 18 of the united states

code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Inventor's Full Name:	Shuyuan	Zhang
Inventor's Signature:	<i>[Signature]</i>	
Country of Citizenship:	China	Date: 4/8/98
Residence Address: (street, number, city, state, and/or country)	3027 Orchard Gate Sugar Land, TX 77479	
Post Office Address: (if different from above)		

Inventor's Full Name:	Capucine	Thwin
Inventor's Signature:	<i>Capucine Thwin</i>	
Country of Citizenship:	U.S.A	Date: 4/8/98
Residence Address: (street, number, city, state, and/or country)	9018 HERTS ROAD SPRING, TX 77379	
Post Office Address: (if different from above)		

Inventor's Full Name:	Zheng	Wu
Inventor's Signature:	<i>Zheng Wu</i>	
Country of Citizenship:	China	Date: 4/8/98
Residence Address: (street, number, city, state, and/or country)	2930 Cotton Stock, Sugar Land, TX 77479	
Post Office Address: (if different from above)		

Inventor's Full Name:	Toohyon	Cho
Inventor's Signature:		
Country of Citizenship:	Korea	Date:
Residence Address: (street, number, city, state, and/or country)	874 Yorkchester, #102 Houston, Texas 77079, U.S.A.	
Post Office Address: (if different from above)		



Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

JUST 12, 1998

PTAS



NOLD, WHITE & DURKEE  
EVEN L. HIGHLANDER  
O. BOX 4433  
USTON, TEXAS 77210

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION  
OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS  
AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER  
REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE  
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CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723.  
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ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY,  
SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 05/26/1998

REEL/FRAME: 9220/0173  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
ZHANG, SHUYUAN

DOC DATE: 04/08/1998

ASSIGNOR:  
THWIN, CAPUCINE

DOC DATE: 04/08/1998

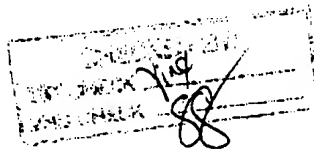
ASSIGNOR:  
WU, ZHENG

DOC DATE: 04/08/1998

ASSIGNEE:  
INTROGEN THERAPEUTICS, INC.  
301 CONGRESS AVE.  
SUITE 1850  
AUSTIN, TEXAS 78701

SERIAL NUMBER: 08975519  
PATENT NUMBER:

FILING DATE: 11/20/1997  
ISSUE DATE:



REC'D - A.W.

AUG 17 1998

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10/0173 PAGE 2

MYA LEE, EXAMINER  
SIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

MRD 5-26-98

06-10-1998

MAY 26

FORM PTO-1585  
(Rev. 6-93)

OMB No. 0651-0011 (exp. 4/94)

100733332  
ONLYU.S. Department of Commerce  
PATENT AND TRADEMARK OFFICE

To the Honorable Commission

and Trademarks: Please record the attached original document or copy thereof.

## 1. Name of conveying party(ies):

Shuyuan Zhang, Capucine Thwin &amp; Zheng Wu

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

☒ Assignment☐ Security Agreement☐ Other☐ Merger☐ Change of Name

Execution Date: April 8, 1998

## 2. Name and address of receiving party(ies):

Name: Introgen Therapeutics, Inc.

Internal Address:

Street Address: 301 Congress Ave., Ste. 1850

City: Austin State: TX Zip: 78701

Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 4. Application number(s) or registration number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No. (s):

08/975,519

B. Patent No. (s):

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Steven L. Highlander  
Arnold, White & Durkee  
P.O. Box 4433

City: Houston State: Texas Zip: 77210

## 6. Total number of applications and patents involved: 1

## 7. Total fee (37 C.F.R. 3.41) \$ 40.00

☒ Enclosed☒ Authorized to be charged to deposit account  
If check insufficient or inadvertently omitted8. Deposit account number: 01-2508/INGN-058/HYL  
(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Steven L. Highlander

Name of Person Signing, Reg. No. 37,642

Signature

5/22/98

De

Total number of pages including cover sheet, attachments and documents

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents and Trademarks, Box Assignment  
Washington, D.C. 20231

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40.00 00

CERTIFICATE OF MAILING  
37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on the date below:

May 22, 1998  
Date

Steven L. Highlander

ASSIGNMENT

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned, do hereby:

SELL, ASSIGN AND TRANSFER to Introgen Therapeutics, Inc. (the "Assignee"), a Delaware corporation, having a place of business at 301 Congress Avenue, Suite 1850, Austin, Texas 78701, the entire right, title and interest for the United States and all foreign countries in and to any and all improvements which are disclosed in the application for United States Letters Patent, Serial No. 08/975,519 which has been filed on November 20, 1997 and is entitled "AN IMPROVED METHOD FOR THE PRODUCTION AND PURIFICATION OF ADENOVIRAL VECTORS", such application and all divisional, continuing, substitute, renewal, reissue and all other applications for patent which have been or shall be filed in the United States and all foreign countries on any of such improvements; all original and reissued patents which have been or shall be issued in the United States and all foreign countries on such improvements; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements;

Signature: Zheng Wu Date: 4/8/98  
Name: Zheng Wu

STATE OF TX )  
COUNTY OF Harris ) ss.

BEFORE ME, the undersigned authority, on this 04 day of April, 1998, personally appeared Zheng Wu, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of he/her own free will for the purposes and consideration therein expressed.



[SEAL]

Tia M. Stovall-Artist  
Notary or Consular Officer

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Name: Toohyon Cho

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) ss.

BEFORE ME, the undersigned authority, on this \_\_\_\_ day of \_\_\_\_\_, 1998, personally appeared Toohyon Cho, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.

\_\_\_\_\_  
Notary or Consular Officer

[SEAL]

ARNOLD, WHITE & DURKEE  
P. O. Box 4433 2001 Jefferson Davis Hwy., Ste. 401  
Houston, Texas 77210 Arlington, Virginia 22202



TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.

Signature: \_\_\_\_\_

Name: Shuyuan Zhang

Date: \_\_\_\_\_

4/8/98

STATE OF

Texas

)

) ss.

COUNTY OF

Harris

)

BEFORE ME, the undersigned authority, on this 8<sup>th</sup> day of April, 1998, personally appeared Shuyuan Zhang, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.



[SEAL]

Tia M. Stovall-Artist  
Notary or Consular Officer

Signature: \_\_\_\_\_

Name: Capucine Thwin

Date: \_\_\_\_\_

4/8/98

STATE OF

Texas

)

) ss.

COUNTY OF

Harris

)

BEFORE ME, the undersigned authority, on this 8<sup>th</sup> day of April, 1998, personally appeared Capucine Thwin, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same of his/her own free will for the purposes and consideration therein expressed.



[SEAL]

Tia M. Stovall-Artist  
Notary or Consular Officer